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a way that its transmission can be processed in synchronism with the chip in the receiver of the base station. In addition, it has been proposed to implement interference [concelers] cancelers which, by means of mathematical algorithms, subsequently eliminate the interference component for the parallel transmissions on the basis of different a priori or a posteriori knowledge. Furthermore, it has also been proposed to use multi-user detectors. A disadvantage of all these known methods is that they are very costly to implement.

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line 24, insert --SUMMARY OF THE INVENTION--;

the paragraph starting at line 33:

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[The technical problem is solved by means of the features of patent claims 1 and 9.] It is necessary for the radio transmission system to be operating in time division duplex mode in which transmission and reception are separated from one another in terms of time within one telecommunications channel, which significantly simplifies the sequence control. In order to synchronize all the subscriber stations, the radio base station transmits a maximum sequence or gold sequence, specific to the radio transmission system, in the form of a preamble for all the subscriber stations before the actual data transmission. Since the information on the direct subscriber-specific system control, such as, for example, call setup and the like is transmitted in a central service channel, a common preamble can be used for all the subscriber stations. This preamble can be detected without restricting other system parameters with a significantly better signal/noise ratio, since multi-user interference is not present and the subscriber-specific signal

A4  
powers can be transmitted in an additive, coherent fashion, which brings about a high level of detection reliability in the subscriber stations. The preamble which is received there is fed to a matched or correlation filter whose output signal serves as a trigger criterion when a defined amplitude threshold value is exceeded. [Further advantageous refinements of the invention emerge from the subclaims.]

Page 6, between line 16 and line 17, insert ~~/~~ BRIEF DESCRIPTION OF  
A5 THE DRAWINGS--;

Between line 37 and line 38, insert ~~/~~ DETAILED DESCRIPTION  
A6 OF THE PREFERRED EMBODIMENTS--.

Page 7, the paragraph starting at line 23:

A7  
In order to determine a first item of synchronization information, the preamble 1 which is received by each subscriber station is fed a matched filter [[sic]] by means of which the reception quality can be determined. A typical signal. Profile at the output of the matched filter of a subscriber station is illustrated in Fig. 3. In order to determine the reception time of the transmission from the radio base station to the respective subscriber station, the output signal at the matched filter is evaluated by means of an amplitude threshold value switch. If the output signal exceeds a predefinable threshold  $Tr_1$ , the amplitude threshold value switch produces a trigger signal[, ] that [[sic]] represents the starting time for the reception of the preamble.

N. 2.  
--Thus, while there have been shown and described and pointed out fundamental novel features of the present invention as applied to a preferred embodiment thereof, it will be understood that various omissions and substitutions and changes in the form and details of the devices illustrated, and in their operation, may be made by those skilled in the art without departing from the spirit of the present invention. For example, it is expressly intended that all combinations of those elements and/or method steps which perform substantially the same function in substantially the same way to achieve the same results are within the scope of the invention. Substitutions of elements from one described embodiment to another are also fully intended and contemplated. It is also to be understood that the drawings are not necessarily drawn to scale but that they are merely conceptual in nature. It is the intention, therefore, to be limited only as indicated by the scope of the claims appended hereto.--

Page 10, starting at line 1:

[[List of reference numerals

- 1) Preamble
- 2) Data item
- 3) Synchronization sequence
- 4) User data
- 5) Symbol]